



State of Utah

Department of
Environmental Quality

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DIVISION OF AIR QUALITY
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DAQE-AN1234010-04

June 7, 2004

Michael Dalley
Staker & Parson Companies
151 West Vine Street
Murray, Utah 84107

Dear Mr. Dalley:

Re: Approval Order: Consolidation of Point East and Point of the Mountain Facilities, Salt Lake County, CDS SM; NA; MAINT; NSPS, HAPs, TITLE V MINOR
Project Code: N1234-010

The attached document is the Approval Order (AO) for the above-referenced project.

Future correspondence on this Approval Order should include the engineer's name as well as the DAQE number as shown on the upper right-hand corner of this letter. Please direct any technical questions you may have on this project to Mr. Jon Black. He may be reached at (801) 536-4047.

Sincerely,

Richard W. Sprott, Executive Secretary
Utah Air Quality Board

RWS:JB:jc

cc: Salt Lake Valley Health Department

STATE OF UTAH

Department of Environmental Quality

Division of Air Quality

**APPROVAL ORDER: Consolidation of Point East and Point of
the Mountain Facilities**

Prepared By: Jon Black, Engineer
(801) 536-4047
Email: jblack@utah.gov

APPROVAL ORDER NUMBER

DAQE-AN1234010-04

Date: June 7, 2004

Staker & Parson Companies

**Source Contact
Michael Dalley
(801) 258-3800**

**Richard W. Sprott
Executive Secretary
Utah Air Quality Board**

Abstract

Staker & Parson Companies has submitted a Notice of Intent for the consolidation of DAQE-AN1234009-03 (Point East Facility) and DAQE-099-00 (Point of the Mountain Facility). These two sites currently are adjacent to one another and therefore it is proposed that they be merged into one site location. The site is located at the Southern end of Salt Lake County. From I-15, take Bluffdale Exit 291 and proceed south on east Frontage Road approximately 3.5 miles. Salt Lake County is a Non-attainment area of the National Ambient Air Quality Standards (NAAQS) for PM_{10} and SO_2 and is a Maintenance area for Ozone. New Source Performance Standards (NSPS) 40 CFR 60 Subparts I (Standards of Performance for Hot Mix Asphalt Facilities) and OOO (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to this plant. National Emission Standards for Hazardous Air Pollutants (NESHAP) and Maximum Available Control Technology (MACT) regulations do not apply to this source. Title V of the 1990 Clean Air Act applies to this source. The emission increase of PM_{10} , SO_2 , and NO_x totals 62.74 tons per year. R307-403-5(1)(b), UAC requires emission offsets of 1.2:1 for new sources or modifications that would produce an emission increase greater than or equal to 50 tons per year of any combination of PM_{10} , SO_2 , and NO_x . Therefore Staker & Parsons shall be required to use 75.29 tons of actual banked emissions of PM_{10} , SO_2 , and/or NO_x from their existing emissions bank. Best Available control technology will require the use of water suppression methods to control fugitive dust and baghouse and binvent controls for the asphalt and concrete plants and their associated equipment.

The emissions, in tons per year, will increase as follows: PM_{10} (+) 21.31, NO_x (+) 26.48, SO_2 (+) 14.95, CO (+) 44.38, VOC (+) 7.69, HAPs (+) 3.43. The changes in emissions will result in the following potential to emit totals, in tons per year: PM_{10} = 41.46, NO_x = 48.38, SO_2 = 25.62, CO = 61.19, VOC = 15.48, HAPs = 4.19.

The project has been evaluated and found to be consistent with the requirements of the Utah Administrative Code Rule 307 (UAC R307). A public comment period was held in accordance with UAC R307-401-4 and no comments were received. This air quality Approval Order (AO) authorizes the project with the following conditions, and failure to comply with any of the conditions may constitute a violation of this order.

General Conditions:

1. This Approval Order (AO) applies to the following company:

<u>Site Office</u>	<u>Corporate Office Location</u>
Staker & Parson Companies	Staker & Parson Companies
3.5 Miles South of Bluffdale Exit 291	151 West Vine Street
Bluffdale, Utah	Murray, Utah 84107
Phone Number	(801) 258-3800
Fax Number	(801) 266-8048

The equipment listed in this AO shall be operated at the following location:

Approximately 120620 N. 10560 West. From I-15, take Bluffdale Exit 291 and proceed south on east Frontage Road approximately 3.5 miles. Located at southern end of Salt Lake County.

Universal Transverse Mercator (UTM) Coordinate System: UTM Datum NAD27
4,483.0 kilometers Northing, 424.5 kilometers Easting, Zone 12

2. All definitions, terms, abbreviations, and references used in this AO conform to those used in the Utah Administrative Code (UAC) Rule 307 (R307) and Title 40 of the Code of Federal Regulations (40 CFR). Unless noted otherwise, references cited in these AO conditions refer to those rules.
3. The limits set forth in this AO shall not be exceeded without prior approval in accordance with R307-401.
4. Modifications to the equipment or processes approved by this AO that could affect the emissions covered by this AO must be reviewed and approved in accordance with R307-401-1.
5. All records referenced in this AO or in applicable NSPS and/or NESHAP and/or MACT standards, which are required to be kept by the owner/operator, shall be made available to the Executive Secretary or Executive Secretary's representative upon request, and the records shall include the two-year period prior to the date of the request. Records shall be kept for the following minimum periods:
 - A. Used oil consumption Three years
 - B. Emission inventories Five years from the due date of each emission statement or until the next inventory is due, whichever is longer.
 - C. All other records Two years
6. Staker & Parson Companies shall install and operate the aggregate, asphalt, and concrete production equipment and shall conduct its operations of the aggregate, asphalt, and concrete production plants in accordance with the terms and conditions of this AO, which was written pursuant to Staker Parson's Notice of Intent submitted to the Division of Air Quality (DAQ) on November 12, 2003 and additional information submitted to the DAQ on December 12, 2003 and January 8, 2003.
7. This AO shall replace the AOs DAQE-099-00 dated February 11, 2000 for Point of the Mountain Plant and DAQE-AN1234009-03 dated April 8, 2003 for the Point East Plant.
8. The approved installations shall consist of the following equipment or equivalent*:

Aggregate Plant

- A. One - Remco 8000 vertical impact crusher*
- B. One - Remco 9000 vertical impact crusher*
- C. One - VSI vertical impact crusher, Mfg 2000, SN#2000-135*
- D. One - JCI Rollercone crusher*
- E. One - Texas Cone Crusher*
- F. Two - 6X20 El-Jay screen*
- G. One - 5X16 El-Jay screen*
- H. Two - 8X20 Simplicity screens*
- I. One - 6X20 JCI screen*
- J. One - 8X20 Cedar rapids screen*

- K. One -Sand recovery operation including cyclone separator and two dredging cranes
- L. Two - 10,000 gallon diesel fuel tanks**
- M. One - 900 gallon unleaded gasoline tank**

Asphalt Plant

- N. One - Drum mix asphalt plant, Astec*
- O. One - Pulse Jet Baghouse, Astec*
- P. One - Lime silo equipped with a fabric filter, Astec*
- Q. One - Pugmill, Astec*
- R. One - Feeder, and associated screen
- S. One - Asphalt cement tank, 30,000 gallon
- T. Cold feed bins
- U. RAP feed bins
- V. Hot mix asphalt storage silo

Concrete Batch Plant

- W. 12-yard Ross Central Mix Plant with associated handling bins and weigh batchers*
- X. Two - C&W Model CP-640 dust collector for the cement silos*
- Y. One - C&W Model CP-320 dust collectors for cement/fly ash silo*
- Z. One - C&W Model RA-120 dust collector for the premixer*
- AA. One - Kemco Systems boiler rated at 7 MMBtu/hr**
- BB. Two - Natural gas space heaters (less than 5 MMBTU each)**

All Operations

- CC. Associated equipment (front-end loaders, bulldozers, conveyors, feeders, etc.)

* Equivalency shall be determined by the Executive Secretary.

** This equipment is listed for informational purposes only.

- 9. The asphalt plant baghouse shall control process streams from the drum mixer. This baghouse shall be sized to handle at least 75,000 ACFM for the existing conditions. All exhaust air from the drum mixer shall be routed through the baghouse before being vented to the atmosphere.
- 10. The following operating parameters shall be maintained within the indicated ranges:
 - A. Asphalt Plant Baghouse
 - 1) The pressure drop shall not be less than 2.0 inches of water column or more than 6.0 inches of water column

The pressure drop shall be monitored with equipment located such that an inspector/operator can safely read the output any time. The reading shall be accurate to within the following range:

- B. Pressure drop - Plus or minus 1.0 inches of water column

All instruments shall be calibrated according to the manufactures instructions at least once every 12 months. Continuous or intermittent recording of the reading is not required.

11. Staker & Parson Companies shall notify the Executive Secretary in writing when the installation of the equipment listed in Condition #8 has been completed and is operational, as an initial compliance inspection is required. To insure proper credit when notifying the Executive Secretary, send your correspondence to the Executive Secretary, attn: Compliance Section.

If construction and/or installation has not been completed within eighteen months from the date of this AO, the Executive Secretary shall be notified in writing on the status of the construction and/or installation. At that time, the Executive Secretary shall require documentation of the continuous construction and/or installation of the operation and may revoke the AO in accordance with R307-401-11.

Limitations and Tests Procedures

12. Visible emissions from the following emission points shall not exceed the following values:
 - A. All crushers - 15% opacity
 - B. All screens - 10% opacity
 - C. All conveyor transfer points - 10% opacity
 - D. All baghouses/bin vents – 10% opacity
 - E. All diesel engines - 20% opacity
 - F. Conveyor drop points - 20% opacity
 - G. All other points - 20% opacity

Opacity observations of emissions from stationary sources shall be conducted according to 40 CFR 60, Appendix A, Method 9.

For sources that are subject to NSPS, opacity shall be determined by conducting observations in accordance with 40 CFR 60.11(b) and 40 CFR 60, Appendix A, Method 9.

13. Visible fugitive dust emissions from haul-road traffic and mobile equipment in operational areas shall not exceed 20% opacity. Visible emissions determinations for traffic sources shall use procedures similar to Method 9. The normal requirement for observations to be made at 15-second intervals over a six-minute period, however, shall not apply. Six points, distributed along the length of the haul road or in the operational area, shall be chosen by the Executive Secretary or the Executive Secretary's representative. An opacity reading shall be made at each point when a vehicle passes the selected points. Opacity readings shall be made ½ vehicle length or greater behind the vehicle and at approximately ½ the height of the vehicle or greater. The accumulated six readings shall be averaged for the compliance value.
14. Emissions to the atmosphere from the indicated emission point shall not exceed the following rates and concentrations:

Source: Hot Mix Asphalt Plant Baghouse Exhaust Stack

<u>Pollutant</u>	<u>lb/hr</u>	<u>grains/dscf</u> (68 degrees F, 29.92 in Hg)
TSP.....	5.80.....	0.030
TSP (RAP) ¹	6.78.....	0.035
PM ₁₀	4.64.....	0.024
PM ₁₀ (RAP).....	5.42.....	0.028

15. Stack testing to show compliance with the emission limitations stated in Condition #14 shall be performed as specified below:

<u>A.</u>	<u>Emission Point</u>	<u>Pollutant</u>	<u>Testing Status</u>	<u>Test Frequency</u>
	Drum exhaust passing through baghouse	TSP (virgin and RAP)	*	#
		PM ₁₀ (virgin and RAP)	**	@

B. Testing Status (To be applied above)

- * Initial compliance testing is required for the asphalt plant. The initial test date shall be performed as soon as possible and in no case later than 180 days after the start up of a new emission source, an existing source without an AO, or the granting of an AO to an existing emission source that is modified. A compliance test is required on the modified emission point that has an emission rate limit. Compliance testing shall not be required for both virgin and recycle materials during the same testing period. Testing shall be performed for the product being produced during the time of testing.
- ** Initial test is not required unless directed otherwise by the Executive Secretary.
- # Initial test is required. Subsequent tests shall only be performed for PM₁₀.
- @ Test every three years (non-attainment area operation) or test every five years (attainment area operation) or sooner if directed by the Executive Secretary. Tests may be required if the source is suspected to be in violation with other conditions of this AO. Compliance testing shall not be required for both virgin and recycle materials during the same testing period. Testing shall be performed for the product being produced during the time of testing.

C. Notification

At least 30 days prior to conducting any emission testing required under any part of UAC, R307, the owner or operator shall notify the Executive Secretary of the

¹ Recycle Asphalt Product

date, time and place of such testing and, if determined necessary by the Executive Secretary, the owner or operator shall attend a pretest conference. A source test protocol shall be submitted to DAQ when the testing notification is submitted to the Executive Secretary. The source test protocol shall be approved by the Executive Secretary prior to performing the test(s). The source test protocol shall outline the proposed test methodologies, stack to be tested, and procedures to be used. A pretest conference shall be held, if directed by the Executive Secretary. The pretest conference shall include representation from the owner/operator, the tester, and the Executive Secretary. The emission point shall be designed to conform to the requirements of 40 CFR 60, Appendix A, Method 1, or other methods as approved by the Executive Secretary. An Occupational Safety and Health Administration (OSHA) or Mine Safety and Health Administration (MSHA) approved access shall be provided to the test location.

D. PM₁₀

For stacks in which no liquid drops are present, the following methods shall be used: 40 CFR 51, Appendix M, Methods 201 or 201a. The back half condensibles shall also be tested using the method specified by the Executive Secretary. All particulate captured shall be considered PM₁₀.

For stacks in which liquid drops are present, methods to eliminate the liquid drops should be explored. If no reasonable method to eliminate the drops exists, then the following methods shall be used: 40 CFR 60, Appendix A, Method 5, 5a, 5d, or 5e as appropriate. The back half condensibles shall also be tested using the method specified by the Executive Secretary. The portion of the front half of the catch considered PM₁₀ shall be based on information in Appendix B of the fifth addition of the EPA document, AP-42, or other data acceptable to the Executive Secretary.

The back half condensibles shall not be used for compliance demonstration but shall be used for inventory purposes.

E. Volumetric Flow Rate

40 CFR 60, Appendix A, Method 2

F. Calculations

To determine mass emission rates (lb/hr, etc.) the pollutant concentration as determined by the appropriate methods above shall be multiplied by the volumetric flow rate and any necessary conversion factors determined by the Executive Secretary, to give the results in the specified units of the emission limitation.

G. New Source Operation

For a new source/emission point, the production rate during all compliance testing shall be no less than 90% of the production rate listed in this AO. If the maximum AO allowable production rate has not been achieved at the time of the test, the following procedure shall be followed:

- 1) Testing shall be at no less than 90% of production rate achieved to date.
- 2) If the test is passed, the new maximum allowable production rate shall be 110% of the tested achieved rate, but not more than the maximum allowable production rate. This new allowable maximum production rate shall remain in effect until successfully tested at a higher rate.
- 3) The owner/operator shall request a higher production rate when necessary. Testing at no less than 90% of the higher rate shall be conducted. A new maximum production rate (110% of the new rate) will then be allowed if the test is successful. This process may be repeated until the maximum AO production rate is achieved.

H. Existing Source Operation

For an existing source/emission point, the production rate during all compliance testing shall be no less than 90% of the maximum production achieved in the previous three (3) years.

16. The amount of recycle asphalt used in each plant shall not exceed 40% of the total product at any time. Compliance shall be determined by the actual hourly production of the plant divided by the hourly amount of recycle product introduced to the plant. Daily records maintained on site shall include:
 - A. Total production
 - B. Amount of recycle asphalt material used in total production
 - C. Daily calculations of the percent recycle used in the total production
17. The following operating limits shall not be exceeded:
 - A. 4,000,000 tons of processed² aggregate material per rolling 12-month period
 - B. 800,000 tons of asphalt production per rolling 12-month period
 - C. 175,000 cubic yards of concrete production per rolling 12-month period
 - D. 18,000 hours total of front-end loader operation per rolling 12-month period
 - E. 4,500 hours total of bull-dozer operation per rolling 12-month period

To determine compliance with a rolling 12-month total the owner/operator shall calculate a new 12-month total by the twentieth day of each month using data from the previous 12 months. Records of production shall be kept for all periods when the plant is in operation. Production shall be determined by scale house records or vendor receipts. The records of production shall be kept on a daily basis. Hours of operation for the front-end loaders and bull-dozers shall be determined by hour meters installed on the equipment or supervisor monitoring and maintaining of an operations log.

Roads and Fugitive Dust

² Processed is defined as passing through a crushing or screening device prior to product delivery.

18. Staker & Parson Companies shall abide by a fugitive dust control plan acceptable to the Executive Secretary for control of all dust sources associated with the Point of the Mountain facility. Staker & Parson's shall abide by the most current fugitive dust control plan approved by the Executive Secretary. The haul road speed shall be posted.
19. The facility shall abide by all applicable requirements of R307-309 for PM₁₀ non-attainment areas for Fugitive Emission and Fugitive Dust sources. However, to be in compliance, this facility must operate in accordance with the most current version of R307-205 and 309.

Fuels

20. The owner/operator shall use natural gas, propane, coal, fuel oil or on-specification used oil as fuel in the asphalt plant.
21. The owner/operator shall use #1, #2 or a combination of #1 and #2 diesel fuel in the on-site equipment.
22. The sulfur content of any fuel oil or diesel burned shall not exceed:
 - A. 0.50 percent by weight for fuels used in the asphalt plant and all other on-site equipment.

The sulfur content shall be determined by ASTM Method D-4294-89 or approved equivalent. Certification of used oil shall be either by Staker & Parson's own testing or test reports from the used oil fuel marketer. Certification of other fuels shall be either by Staker & Parson's own testing or test reports from the fuel marketer.

23. Sources burning used oil for energy recovery shall comply with the following:
 - A. The concentrations/parameters of contaminants in any used oil fuel shall not exceed the following levels:
 - 1) Arsenic.....5 ppm by weight
 - 2) Cadmium.....2 ppm by weight
 - 3) Chromium.....10 ppm by weight
 - 4) Lead.....100 ppm by weight
 - 5) Total halogens.....1,000 ppm by weight
 - 6) Sulfur.....0.5 percent by weight
 - B. The flash point of all used oil to be burned shall not be less than 100 °F.
 - C. The owner/operator shall provide test certification for each load of used oil fuel received. Certification shall be either by their own testing or test reports from the used oil fuel marketer. Records of used oil fuel consumption and the test reports shall be kept for all periods when the plant is in operation. Records shall be made available to the Executive Secretary or the Executive Secretary's representative upon request. The records shall include the three-year period prior to the date of the request.

- D. Used oil that does not exceed any of the listed contaminants content may be burned. The owner/operator shall record the quantities of oil burned on a daily basis.
- E. Any used oil fuel that contains more than 1000 ppm by weight of total halogens shall be considered a hazardous waste and shall not be burned in the boiler. The oil shall be tested for halogen content by ASTM Method D-808-81, EPA Method 8240 or Method 8260 before used oil fuel is transferred to the boiler tank and burned.
- F. Sources utilizing used oil as a fuel shall comply with the State Division of Solid and Hazardous Waste in accordance with R315-15, UAC.

Federal Limitations and Requirements

- 24. In addition to the requirements of this AO, all applicable provisions of 40 CFR 60, New Source Performance Standards (NSPS) Subpart A, 40 CFR 60.1 to 60.18 (General Provisions) and Subpart I, 40 CFR 60.90 to 60.93 (Standards of Performance for Hot Mix Asphalt Facilities), and Subpart OOO, 40 CFR 60.670 to 60.676 (Standards of Performance for Nonmetallic Mineral Processing Plants) apply to this installation. However, to be in compliance, this facility must operate in accordance with the most current version of 40 CFR 60 applicable to this installation/plant/source.

Records & Miscellaneous

- 25. At all times, including periods of startup, shutdown, and malfunction, owners and operators shall, to the extent practicable, maintain and operate any equipment approved under this Approval Order including associated air pollution control equipment in a manner consistent with good air pollution control practice for minimizing emissions. Determination of whether acceptable operating and maintenance procedures are being used will be based on information available to the Executive Secretary which may include, but is not limited to, monitoring results, opacity observations, review of operating and maintenance procedures, and inspection of the source. All maintenance performed on equipment authorized by this AO shall be recorded.
- 26. The owner/operator shall comply with R307-150 Series. Inventories, Testing and Monitoring.
- 27. The owner/operator shall comply with R307-107. General Requirements: Unavoidable Breakdowns.

The Executive Secretary shall be notified in writing if the company is sold or changes its name.

This AO in no way releases the owner or operator from any liability for compliance with all other applicable federal, state, and local regulations including R307.

A copy of the rules, regulations and/or attachments addressed in this AO may be obtained by contacting the Division of Air Quality. The Utah Administrative Code R307 rules used by DAQ, the Notice of Intent (NOI) guide, and other air quality documents and forms may also be obtained on the Internet at the

following web site:

<http://www.deq.utah.gov/>

The annual emissions estimations below include point source, fugitive emissions, fugitive dust, road dust and on-site tail pipe emissions. These emissions are for the purpose of determining the applicability of Prevention of Significant Deterioration, non-attainment area, Maintenance area, and Title V source requirements of the R307. They are not to be used for determining compliance.

The Potential To Emit (PTE) emissions for this source (the entire plant) are currently calculated at the following values:

	<u>Pollutant</u>	<u>Tons/yr</u>
A.	PM ₁₀	41.46
B.	SO ₂	25.62
C.	NO _x	48.38
D.	CO	61.19
E.	VOC	15.48
F.	HAPs	
	Benzene	0.16
	Ethyl Benzene	0.10
	Formaldehyde	1.24
	Toluene	1.16
	Xylene	0.07
	Miscellaneous HAPs	1.46
	Total HAPs	4.19

Approved By:

Richard W. Sprott, Executive Secretary
Utah Air Quality Board